

Notice of Allowability

Application No.

10/730,027

Examiner

Raj K. Jain

Applicant(s)

CHA ET AL.

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/9/03.
2. ☒ The allowed claim(s) is/are 1, 3-14 renumbered 1-13.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 20070613.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Samuel Nitros on 8 June 07.

Cancel claims 2 and 15-29.

Amend claims 1, 3, 4, 6, 7, 13 as follows;

1. (Currently Amended) A call admission control method in a mobile communication system, comprising:

determining whether a call arising in the mobile communication system is a voice call or a data call;

checking whether one or more minimum resources are available;

performing a voice call priority guarantee function; and

establishing a maximum supplemental channel (SCH) connection if the call is a data call, wherein, if there is no available resource for the voice call, the method further comprises:

generating extra resources by reducing a transmission rate of a data call which has already been connected;

accommodating the voice call with said extra resources; and

for the data call, generating extra resources by, while maintaining a minimum transmission rate of an SCH designated for the data call, reducing the transmission rate of another data call and establishing the maximum SCH connection with said generated extra resources.

3. (Currently Amended) A call admission control ~~The method of claim 4~~ in a mobile communication system, comprising:

determining whether a call arising in the mobile communication system is a voice call or a data call;

checking whether one or more minimum resources are available;

performing a voice call priority guarantee function; and

establishing a maximum supplemental channel (SCH) connection if the call is a data call, wherein said call admission control process comprises:

confirming that the call that arose in the mobile communication system is a voice call, determining whether there are available modem resources in an a frequency assignment (FA) to be used between a relevant mobile station and a base station, and assigning the FA accordingly;

checking extra capacity in a radio band for a relevant sector/FA and conducting a call admission check accordingly; and

upon completion of the call admission check, assigning resources according to the determined state of resource availability and establishing the connection for a fundamental channel (FCH) between the mobile station and the base station and establishing the connection for the voice call.

Art Unit: 2616

4. (Currently Amended) The method of claim 3, wherein said call admission check comprises:

specifying a transmission rate among quality of service (QoS) parameters to be used in the call admission check as a basic transmission rate of the FCH;

determining whether to conduct admission power control by referring to a database related to call admission control and conducting admission power control accordingly; and controlling an admission maximum transmission rate so as not to exceed a maximum data rate of a relevant sector/FA by referring to the database related to the call admission control.

6. (Currently Amended) A call admission control ~~The method of claim 4~~ in a mobile communication system, comprising:

determining whether a call arising in the mobile communication system is a voice call or a data call;

checking whether one or more minimum resources are available;

performing a voice call priority guarantee function; and

establishing a maximum supplemental channel (SCH) connection if the call is a data call, wherein said call admission control process comprises:

confirming that the call that arose in the mobile communication system is a data call,

determining whether there are available modem resources in ~~an~~ a frequency assignment (FA) to be used between the relevant mobile station and the base station and assigning the FA accordingly;

checking extra capacity in a radio band for a relevant sector/FA and conducting a call admission check accordingly;

upon completion of the call admission check, assigning resources according to the determined state of resource availability and establishing a fundamental channel (FCH) FCH and the voice call connection between the mobile station and the base station;

conducting call admission control, in which a maximum assignable value for a requested data transmission rate is determined in accordance with call admission control parameters; and

assigning SCH resources at the data transmission rate determined by said call admission control, and establishing the data call connection between the mobile station and the base station.

7. (Currently Amended) The method of claim 6, wherein said call admission check comprises:

specifying a transmission rate among quality of service (QoS) parameters to be used in the call admission check as a basic transmission rate of the FCH plus a minimum data transmission rate of the forward link in a database related to the call admission control;

determining whether to conduct admission power control by referring to the database related to the call admission control and conducting admission power control accordingly; and

controlling an admission maximum transmission rate so as not to exceed a maximum data rate of a relevant sector/FA by referring to the database related to the call admission control.

13. (Currently Amended) A call admission control method in a mobile communication system, comprising:

confirming at a time of a call connection request that a call is a data call request;

determining whether there are available modem resources in an a frequency assignment (FA) to be used between the relevant mobile station and the base station and then assigning the FA accordingly;

checking extra capacity in a radio band for a relevant sector/FA and conducting a call admission check accordingly;

upon the completion of the call admission check, assigning resources according to the determined state of resource availability and thus establishing connection for a fundamental channel (FCH) between the mobile station and the base station and establishing the connection for the voice call;

conducting a call admission control function, in which a maximum assignable value for a requested data transmission rate is determined in accordance with call admission control parameters; and

assigning SCH (Supplemental Channel) resources at the data transmission rate determined by said call admission control and thus establishing the data call connection between the mobile station and the base station.

Allowable Subject Matter

The following is an examiner's statement of reasons for allowance:

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Claim 1 is allowed. The prior art discloses a call admission control method in a mobile communications system wherein a call is determined to be either a data or a voice call and establishing a communications channel accordingly.

The prior art however fails to disclose generating extra resources by reducing the transmission rate of a data call which has already been connected and accommodating the voice call with said extra resources; and for the data call, generating extra resources by, while maintaining a minimum transmission rate of an supplemental channel (SCH) designated for a data call, reducing the transmission rate of another data call and establishing the maximum SCH connection with said generated extra resources.

Claim 3, is allowed. The prior art discloses a call admission control method in a mobile communications system wherein a call is determined to be either a data or a voice call and establishing a communications channel accordingly.

The prior art however fails to disclose determining whether there are available modem resources in a frequency assignment (FA) for a voice call to be used between a relevant mobile station and a base station, and than checking for extra capacity in a

Art Unit: 2616

radio band for a relevant sector/FA and conducting a call admission check accordingly; and upon completion of the call admission check, assigning resources according to the determined state of resource availability and establishing a connection for a fundamental channel (FCH) between the mobile station and the base station and establishing the connection for the voice call.

Claims 6 and 13 are allowed. The prior art discloses a call admission control method in a mobile communications system wherein a call is determined to be either a data or a voice call and establishing a communications channel accordingly.

The prior art however fails to disclose determining whether there are available modem resources in a frequency assignment (FA) for a voice call to be used between a relevant mobile station and a base station, and then checking for extra capacity in a radio band for a relevant sector/FA and conducting a call admission check accordingly; and assigning resources according to the determined state of resource availability and establishing a connection for a fundamental channel (FCH) between the mobile station and the base station and establishing the connection for the voice call and further conducting call admission control, in which a maximum assignable value for a requested data transmission rate is determined in accordance with call admission control parameters and assigning SCH (Supplemental Channel) resources at the data transmission rate determined by said call admission control.

Conclusion

Art Unit: 2616

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raj K. Jain whose telephone number is 571-272-3145. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Raj K. Jain/

Art Unit 2616

June 14, 2007